

## **STIC Biotechnology Systems Branch**

### **RAW SEQUENCE LISTING** **ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/589,955  
Source: FWP  
Date Processed by STIC: 8/28/06

**THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.**

**PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:**

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

**FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221**

**TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:**

**<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (<<http://www.uspto.gov/ebs/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)**
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**
- 3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):  
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314**

Revised 01/10/06

## Raw Sequence Listing Error Summary

### ERROR DETECTED

### SUGGESTED CORRECTION

SERIAL NUMBER:

10/589,955

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1      Wrapped Nucleics  
    Wrapped Aminos     The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
  
- 2      Invalid Line Length     The rules require that a line not exceed 72 characters in length. This includes white spaces.
  
- 3      Misaligned Amino  
    Numbering     The numbering under each 5<sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
  
- 4   J   Non-ASCII     The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
  
- 5      Variable Length     Sequence(s)      contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
  
- 6      PatentIn 2.0  
    "bug"     A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s)     . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
  
- 7      Skipped Sequences  
    (OLD RULES)     Sequence(s)      missing. If intentional, please insert the following lines for each skipped sequence:  
                           (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
                           (i)     SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  
                           (xi)  SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
                           This sequence is intentionally skipped  
                           Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
  
- 8      Skipped Sequences  
    (NEW RULES)     Sequence(s)      missing. If intentional, please insert the following lines for each skipped sequence.  
                           <210> sequence id number  
                           <400> sequence id number  
                           000
  
- 9      Use of n's or Xaa's  
    (NEW RULES)     Use of n's and/or Xaa's have been detected in the Sequence Listing.  
                           Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.  
                           In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
  
- 10   J   Invalid <213>  
    Response     Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence. (see item 11 below)
  
- 11      Use of <220>     Sequence(s)      missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section or use "chemically synthesized" as explanation. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32), also Sec. 1.823 of Sequence Rules
  
- 12      PatentIn 2.0  
    "bug"     Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
  
- 13      Misuse of n/Xaa     "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



IFWP

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/589,955

DATE: 08/28/2006  
TIME: 09:40:09

Input Set : A:\PTO.RJ.txt  
Output Set: N:\CRF4\08282006\J589955.raw

3 <110> APPLICANT: National Institute of Advanced Industrial Science and Technology  
4 Kinki University  
5 Kitakyushu Foundation for the Advancement of Industry  
7 <120> TITLE OF INVENTION: Cytoplasm-localized DNA and RNA  
9 <130> FILE REFERENCE: 05-102NIQ  
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/589,955  
C--> 11 <141> CURRENT FILING DATE: 2006-08-18  
11 <150> PRIOR APPLICATION NUMBER: JP 2004-045488  
12 <151> PRIOR FILING DATE: 2004-02-20  
14 <150> PRIOR APPLICATION NUMBER: JP 2004-136228  
15 <151> PRIOR FILING DATE: 2004-04-30  
17 <160> NUMBER OF SEQ ID NOS: 28  
19 <170> SOFTWARE: PatentIn version 3.1

*see Jan 4 on  
Ena summary  
sheet*  
Does Not Comply  
Corrected Diskette Needed

*see pg 1-6*

## ERRORED SEQUENCES

133 <210> SEQ ID NO: 9  
134 <211> LENGTH: 21  
135 <212> TYPE: RNA  
136 <213> ORGANISM: Artificial  
138 <220> FEATURE:  
139 <223> OTHER INFORMATION: Probe  
141 <400> SEQUENCE: 9  
E--> 142 cuacaucaag ccagucacac t  
145 <210> SEQ ID NO: 10  
146 <211> LENGTH: 21  
147 <212> TYPE: RNA  
148 <213> ORGANISM: Artificial  
150 <220> FEATURE:  
151 <223> OTHER INFORMATION: Probe  
153 <400> SEQUENCE: 10  
E--> 154 guugacuggc gugauguac t  
259 <210> SEQ ID NO: 19  
260 <211> LENGTH: 22  
261 <212> TYPE: RNA  
262 <213> ORGANISM: Artificial  
264 <220> FEATURE:  
265 <223> OTHER INFORMATION: Linker  
267 <220> FEATURE:  
268 <221> NAME/KEY: modified\_base  
269 <222> LOCATION: (1)..(1)  
270 <223> OTHER INFORMATION: Linker

*It's not allowed in an RNA sequence.  
For a combined DNA/RNA sequence,  
use <2127 DNA and replace in  
21 section*

*same error*

*same*

## RAW SEQUENCE LISTING

DATE: 08/28/2006

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Input Set : A:\PTO.RJ.txt

Output Set : N:\CRF4\08282006\J589955.raw

"n" can only represent  
a single nucleotide, nothing  
else

```

273 <220> FEATURE:
274 <221> NAME/KEY: misc_feature
275 <222> LOCATION: (1)..(1)
276 <223> OTHER INFORMATION: "n" is -O-CH.sub.2CH.sub.2-O-CH.sub.2CH.sub.2-NH.sub.2
279 <400> SEQUENCE: 19
E--> 280 ncuacaucaac gccagucaac tt 22
283 <210> SEQ ID NO: 20
284 <211> LENGTH: 22
285 <212> TYPE: RNA
286 <213> ORGANISM: Artificial
288 <220> FEATURE:
289 <223> OTHER INFORMATION: Linker
291 <220> FEATURE:
292 <221> NAME/KEY: modified_base
293 <222> LOCATION: (1)..(1)
294 <223> OTHER INFORMATION: Linker
297 <220> FEATURE:
298 <221> NAME/KEY: misc_feature
299 <222> LOCATION: (1)..(1)
300 <223> OTHER INFORMATION: "n" is -O-CH.sub.2CH.sub.2-O-CH.sub.2CH.sub.2-NH.sub.2
303 <400> SEQUENCE: 20
E--> 304 nguugacugg cgugauguag tt 22
307 <210> SEQ ID NO: 21
308 <211> LENGTH: 21
309 <212> TYPE: RNA
310 <213> ORGANISM: Artificial
312 <220> FEATURE:
313 <223> OTHER INFORMATION: Modified thymidine
315 <220> FEATURE:
316 <221> NAME/KEY: modified_base
317 <222> LOCATION: (20)..(20)
318 <223> OTHER INFORMATION: Modified thymidine
321 <400> SEQUENCE: 21
E--> 322 cuacaucaacg ccagucaact t 21
325 <210> SEQ ID NO: 22
326 <211> LENGTH: 21
327 <212> TYPE: RNA
328 <213> ORGANISM: Artificial
330 <220> FEATURE:
331 <223> OTHER INFORMATION: Modified thymidine
333 <220> FEATURE:
334 <221> NAME/KEY: modified_base
335 <222> LOCATION: (20)..(20)
336 <223> OTHER INFORMATION: Modified thymidine
339 <400> SEQUENCE: 22
E--> 340 guugacuggc gugauguagt t 21
343 <210> SEQ ID NO: 23
344 <211> LENGTH: 21
345 <212> TYPE: RNA

```

same error as above

this does not describe Artificial  
Sequence

not acceptable in an RNA  
sequence

same error as above

same

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/10/589,955

DATE: 08/28/2006  
 TIME: 09:40:09

Input Set : A:\PTO.RJ.txt  
 Output Set: N:\CRF4\08282006\J589955.raw

```

346 <213> ORGANISM: Artificial
348 <220> FEATURE:
349 <223> OTHER INFORMATION: Modified thymidine .. eww
351 <220> FEATURE:
352 <221> NAME/KEY: modified_base
353 <222> LOCATION: (6)..(6)
354 <223> OTHER INFORMATION: Modified thymidine
357 <220> FEATURE:
358 <221> NAME/KEY: modified_base
359 <222> LOCATION: (15)..(15)
360 <223> OTHER INFORMATION: Modified thymidine
363 <400> SEQUENCE: 23
E--> 364 cuacaucaagc ccagucaaat t 21
367 <210> SEQ ID NO: 24
368 <211> LENGTH: 21
369 <212> TYPE: RNA
370 <213> ORGANISM: Artificial
372 <220> FEATURE:
373 <223> OTHER INFORMATION: Modified thymidine
375 <220> FEATURE:
376 <221> NAME/KEY: modified_base
377 <222> LOCATION: (7)..(7)
378 <223> OTHER INFORMATION: Modified thymidine
381 <220> FEATURE:
382 <221> NAME/KEY: modified_base
383 <222> LOCATION: (12)..(12)
384 <223> OTHER INFORMATION: Modified thymidine
387 <220> FEATURE:
388 <221> NAME/KEY: modified_base
389 <222> LOCATION: (15)..(15)
390 <223> OTHER INFORMATION: Modified thymidine
393 <220> FEATURE:
394 <221> NAME/KEY: modified_base
395 <222> LOCATION: (17)..(17)
396 <223> OTHER INFORMATION: Modified thymidine
399 <400> SEQUENCE: 24
E--> 400 guugacuggc gugauguagt t 21
403 <210> SEQ ID NO: 25
404 <211> LENGTH: 25
405 <212> TYPE: RNA
406 <213> ORGANISM: Artificial
408 <220> FEATURE:
409 <223> OTHER INFORMATION: Linker
411 <220> FEATURE:
412 <221> NAME/KEY: modified_base
413 <222> LOCATION: (1)..(1)
414 <223> OTHER INFORMATION: Linker
417 <220> FEATURE:
418 <221> NAME/KEY: misc_feature

```

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/589,955

DATE: 08/28/2006  
TIME: 09:40:09

Input Set : A:\PTO.RJ.txt

Output Set: N:\CRF4\08282006\J589955.raw

419 <222> LOCATION: (1)..(1) *enn*

420 <223> OTHER INFORMATION: "n" is -O-CH.sub.2CH.sub.2-O-CH.sub.2CH.sub.2-NH-R.sup.1

423 <400> SEQUENCE: 25

E--> 424 ncuaucac gccagucac tt 22

427 <210> SEQ ID NO: 26

428 <211> LENGTH: 25

429 <212> TYPE: RNA

430 <213> ORGANISM: Artificial

432 <220> FEATURE:

433 <223> OTHER INFORMATION: Modified thymidine

435 <220> FEATURE:

436 <221> NAME/KEY: modified\_base

437 <222> LOCATION: (20)..(20)

438 <223> OTHER INFORMATION: Modified thymidine *enn*

441 <400> SEQUENCE: 26

E--> 442 cuacacacg ccagucac t 21

445 <210> SEQ ID NO: 27

446 <211> LENGTH: 26

447 <212> TYPE: RNA

448 <213> ORGANISM: Artificial

450 <220> FEATURE:

451 <223> OTHER INFORMATION: Modified thymidine

453 <220> FEATURE:

454 <221> NAME/KEY: modified\_base

455 <222> LOCATION: (1)..(1)

456 <223> OTHER INFORMATION: Linker

459 <220> FEATURE:

460 <221> NAME/KEY: modified\_base *enn*

461 <222> LOCATION: (21)..(21)

462 <223> OTHER INFORMATION: Modified thymidine

465 <220> FEATURE: *enn*

466 <221> NAME/KEY: misc\_feature

467 <222> LOCATION: (1)..(1)

468 <223> OTHER INFORMATION: "n" is -O-CH.sub.2CH.sub.2-O-CH.sub.2CH.sub.2-NH-R.sup.1

471 <400> SEQUENCE: 27

E--> 472 ncuaucac gccagucac tt 22

475 <210> SEQ ID NO: 28

476 <211> LENGTH: 27

477 <212> TYPE: RNA

478 <213> ORGANISM: Artificial

480 <220> FEATURE:

481 <223> OTHER INFORMATION: Modified thymidine

483 <220> FEATURE:

484 <221> NAME/KEY: modified\_base

485 <222> LOCATION: (1)..(1)

486 <223> OTHER INFORMATION: Linker

489 <220> FEATURE:

490 <221> NAME/KEY: modified\_base

491 <222> LOCATION: (3)..(3)

## RAW SEQUENCE LISTING

DATE: 08/28/2006

PATENT APPLICATION: US/10/589,955

TIME: 09:40:09

Input Set : A:\PTO.RJ.txt

Output Set: N:\CRF4\08282006\J589955.raw

492 <223> OTHER INFORMATION: Modified thymidine  
495 <220> FEATURE:  
496 <221> NAME/KEY: modified\_base  
497 <222> LOCATION: (7)..(7)  
498 <223> OTHER INFORMATION: Modified thymidine  
501 <220> FEATURE:  
502 <221> NAME/KEY: modified\_base  
503 <222> LOCATION: (16)..(16)  
504 <223> OTHER INFORMATION: Modified thymidine  
507 <220> FEATURE:  
508 <221> NAME/KEY: modified\_base *err*  
509 <222> LOCATION: (21)..(21)  
510 <223> OTHER INFORMATION: Modified thymidine *err*  
513 <220> FEATURE:  
514 <221> NAME/KEY: misc\_feature  
515 <222> LOCATION: (1)..(1)  
516 <223> OTHER INFORMATION: "n" is -O-CH.sub.2CH.sub.2-O-CH.sub.2CH.sub.2NH-R.sup.1  
519 <400> SEQUENCE: 28  
E--> 520 ncuaacac gccagucac *tt* 22

10/589,955

6

<210> 2  
<211> 10  
<212> PRT  
<213> PKI f<sub>2</sub>

1) do not use scientific symbols. They cannot be processed by CFF software.  
2) invalid <213> response  
(see item 10 on Euro summary sheet)

<400> 2  
Leu Ala Leu Lys Leu Ala Gly Leu Asp Ile  
1 5 10

<210> 3  
<211> 13  
<212> PRT  
<213> MAPKK

same error

This type of error appears in subsequent sequences, too.



VERIFICATION SUMMARY

DATE: 08/28/2006

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TIME: 09:40:10

Input Set : A:\PTO.RJ.txt

Output Set: N:\CRF4\08282006\J589955.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No  
 L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
 L:142 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2  
 L:154 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2  
 L:280 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0  
 L:280 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2  
 L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0  
 L:304 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2  
 L:322 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2  
 L:340 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2  
 L:364 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2  
 L:400 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2  
 L:424 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0  
 L:424 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2  
 L:442 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2  
 L:472 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0  
 L:472 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2  
 L:520 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0  
 L:520 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2